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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/824,243

04/14/2004

Ho Kee Herbert Law

50T5479.01

6425

27774 7590 08/21/2008

MAYER & WILLIAMS PC  
251 NORTH AVENUE WEST  
2ND FLOOR  
WESTFIELD, NJ 07090

EXAMINER

AMADIZ, RODNEY

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

08/21/2008

PAPER

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/824,243  
Filing Date: April 14, 2004  
Appellant(s): LAW ET AL.

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Karin L. Williams  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed July 21, 2008 appealing from the Office action mailed August 17, 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The amendment after final rejection filed on July 21, 2008 has been entered.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6752758	Motoki et al.	6-2004
6977811	Fleck et. al	12-2005
2004/0085289	Mak	5-2004

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mak (USPGPUB 2004/0085289—herein referred to as “Mak”) in view of Motoki et al. (U.S. Patent 6,752,758—herein referred to as “Motoki”).

As to **Claim 1**, Mak teaches an apparatus for interfacing with a user comprising: a first manipulandum (***Fig. 3, Reference Number 310 and Pg. 3, ¶ 38***) to provide a first type of input from the user to a computer program; and a second manipulandum (***Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶’s 38-42***) disposed in close proximity to the first manipulandum to provide a second type of input from the user to the computer program, wherein said second type of input comprises discrete input (***Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶’s 38-42***). Mak, however, fails to teach the first type of input comprising continuous input. Examiner cites Motoki to teach an analog joystick capable of inputting continuous input (***Motoki—Fig. 18, Reference number 145 and Col. 18, line 64—Col.***

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**19, line13).** At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the use of an analog joystick as taught by Motoki in the input device taught by Mak in order to provide the device with a greater degree of freedom to function.

As to **Claims 2 and 4**, Mak teaches the first manipulandum comprising a joystick (**Fig. 3, Reference Number 310 and Pg. 3, ¶ 38**).

As to **Claim 3**, Mak teaches the second manipulandum comprising a joy pad (**Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶'s 38-42**).

As to **Claim 5**, Mak teaches the first type of input comprises directional input parallel to a base plane (**Pg. 3, ¶ 38—note that the joystick is “moved”**) and the second type of input comprises directional input perpendicular to the base plane (**Pg. 3, ¶ 38—note that the directional keys are “pressed”**).

As to **Claim 7**, Mak teaches the joy pad including one or more inputs (**Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶'s 38-42**).

As to **Claim 8**, Mak teaches the joystick extending upward vertically from a center of the joy pad (**See Fig. 3**).

As to **Claim 9**, Mak fails to teach the joystick including a circular top. Examiner cites Motoki to teach a joystick with a circular top (**Fig. 18, Reference Number 128 and 145a and Figs. 19A-19D**). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use a circular top for a joystick as

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taught by Motoki in the input device taught by Mak in order to provide a comfortable touching surface for a user's thumb.

3. Claims 10-16, 18-23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mak in view of Motoki in view of Fleck et al. (U.S. Patent 6,977,811—hereinafter “Fleck”).

As to **Claim 10**, Mak teaches an apparatus for interfacing with a user (**Fig. 3**) comprising: a first manipulandum to provide a first type of input from the user to a computer program (**Fig. 3, Reference Number 310 and Pgs. 3-4, ¶ 38-42**), wherein the first manipulandum comprises a joystick (**Fig. 3, 310**); and a second manipulandum disposed in close proximity to the first manipulandum to provide a second type of input from the user to the computer program, wherein the second manipulandum comprises a joy pad (**Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶'s 38-42**), wherein the joy pad including one or more inputs (**Mak—Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶'s 38-42**). Mak fails to teach the joystick including a circular top. Motoki teaches a joystick knob with a circular top (**Fig. 18, Reference Number 128 and 145a and Figs. 19A-19D**). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art incorporate a circular top as taught by Motoki on the joystick taught by Mak so that users may easily grip and handle the joystick and to provide a comfortable touching surface for a user's thumb.

Mak, as modified by Motoki, however, fails to teach the circular top having a radius that extends almost to a beginning of the one or more inputs of the joy pad, whereby a user can simultaneously move the joystick and depress one input of the joy pad with a single digit. Examiner cites Fleck to teach an input device having a radius that extends almost to a beginning of the one or more inputs of the joy pad, whereby a user can simultaneously move the joy stick and depress one input of the joy pad with a single digit (***Fleck—Fig. 1, Reference Number 112, Fig. 3, Reference Numbers 300-308 and Fig. 8 and Col. 4, lines 40-65 and Col. 5, lines 1-49***). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to form an input device relatively close to a keypad as taught by Fleck in the input device taught by Mak and Motoki so that the user would not have to reposition his fingertips across the keyboard to actuate a key (***Fleck—Col. 5, lines 13-25 and 35-49***).

As to **Claim 12**, Mak teaches an apparatus for interacting with a computer comprising: a multifunction switch including a plurality of buttons to accept one or more discrete inputs from the user (***Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶'s 38-42***); and a joystick input device disposed in close proximity to the multifunction (***Fig. 3, Reference Number 310 and Pg. 3, ¶ 38***). Mak; however, fails to teach the joystick accepting continuous input from the user. Examiner cites Motoki to teach an analog joystick accepting continuous input fro a user (***Motoki—Fig. 18, Reference number 145 and Fig. 24—note user operating Reference Number 202 and Col. 18, line 64—Col. 19, line 13***). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate

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the use of an analog joystick as taught by Motoki in the input device taught by Mak in order to provide the device with a greater degree of freedom to function. Mak fails to teach the joystick including a knob disposed on a top of the joystick and the knob having a circular top. Motoki teaches a joystick knob with a circular top (**Fig. 18, Reference Number 128 and 145a and Figs. 19A-19D**). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to place a knob with a circular top as taught by Motoki on the joystick taught by Mak so that users may easily grip and handle the joystick and to provide a comfortable touching surface for a user's thumb.

Mak, as modified by Motoki, also fails to teach the circular top having a radius that extends in radius to the plurality of directional inputs. Examiner cites Fleck to teach an input device having a radius that extends in radius to the plurality of directional inputs (**Fleck—Fig. 1, Reference Number 112, Fig. 3, Reference Numbers 300-308 and Fig. 8 and Col. 4, lines 40-65 and Col. 5, lines 1-49**). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to form an input device relatively close to a keypad as taught by Fleck in the input device taught by Mak, as modified by Motoki, so that the user would not have to reposition his fingertips across the keyboard to actuate a key (**Fleck—Col. 5, lines 13-25 and 35-49**).

As to **Claim 13**, Mak teaches the joystick disposed in a center of the multifunction switch (**Note Fig. 3**).

As to **Claim 18**, Mak teaches a method for interfacing a user and a computer program comprising: coupling a joystick to a computer interface to provide first input



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from a user to a computer program executing on a computer (**Fig. 3, Reference Number 310 and Pg. 3, ¶ 38**); coupling a joy pad to a computer interface to provide second input from a user to the computer program executing on the computer (**Fig. 3, Reference Numbers 306a-306b and 308a-308b and Pgs. 3 and 4 and ¶'s 38-42**); and disposing the joystick in close proximity to the joy pad so that a single user's digit can manipulate both the joystick and one or more buttons or positions on the joy pad (**See Fig. 3—note that the apparatus is a phone which is a compact device and lends itself to this type of operation**). Mak fails to teach the joystick including a knob disposed on a top of the joystick and the knob having a circular top. Motoki teaches a joystick knob with a circular top (**Fig. 18, Reference Number 128 and 145a and Figs. 19A-19D**). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to place a knob with a circular top as taught by Motoki on the joystick taught by Mak so that users may easily grip and handle the joystick and to provide a comfortable touching surface for a user's thumb.

Mak, as modified by Motoki, also fails to teach the circular top having a radius that extends in radius to the plurality of directional inputs. Examiner cites Fleck to teach an input device having a radius that extends in radius to the plurality of directional inputs (**Fleck—Fig. 1, Reference Number 112, Fig. 3, Reference Numbers 300-308 and Fig. 8 and Col. 4, lines 40-65 and Col. 5, lines 1-49**). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to form an input device relatively close to a keypad as taught by Fleck in the input device taught by Mak,

as modified by Motoki, so that the user would not have to reposition his fingertips across the keyboard to actuate a key (***Fleck—Col. 5, lines 13-25 and 35-49***).

As to **Claim 19**, Mak teaches performing predetermined operations in the computer program from a combination of inputs from both the joystick and the joy pad (***Pgs. 3-4, ¶'s 38-42***).

As to **Claim 20**, Mak teaches the joystick extending upward vertically from a center of the joy pad (***See Fig. 3***).

As to **Claims 14-16 and 21-23**, Mak teaches the joy pad including a plurality of inputs disposed in a cross pattern, circular pattern and a star pattern (***See Fig. 3 and note the positions of elements 306a-306b and 308a-308b***).

As to **Claims 11 and 25**, Motoki teaches the circular top/knob including a beveled edge (***Fig. 18, Reference Number 128 and 145a and Figs. 19A-19D***).

4. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mak in view of Motoki and Fleck, as applied to claims 10-16, 18-23 and 25 above, and in further view of Harding et al. (U.S. Patent 6,184,869—herein referred to as “Harding”).

As to **Claim 26**, Mak, as modified by Motoki and Fleck, fails to teach the joy pad including a touch pad. Examiner cites Harding to teach an input device having multi-directional detection devices that can be simultaneously operated wherein a touch pad is used in conjunction with joysticks and other multi-directional devices (***Col. 5, line 63—Col. 6, lines 21***). At the time the invention was made, it would have been obvious

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to a person of ordinary skill in the art to incorporate the use of a touch pad as taught by Harding in the input device taught by Mak in order to produce more accurate detection.

**(10) Response to Argument**

**APPELLANT'S ARGUMENTS:**

A. "First, Motoki is directed to an endoscope apparatus with a 'bending drive device with a drive source' for bending a bending portion of the endoscope—Motoki is focused on improving operational precision of an endoscope, noting that 'the operational precision is improved by narrowing an insensitive range of a neutral position where an angle signal from a joystick should be stopped' (col. 5, lines 34-37)...Motoki is directed to completely ***nonanalogous art*** of an endoscope drive device, and there is absolutely no reason to believe that Motoki would have come to Mak's attention in considering a way to 'provide his device with a greater degree of freedom to function' as alleged in the Action." (Emphasis added) (Pg. 4, ¶ 4). The Appellant continues to state that "The assertion in the Office Action that such a combination would 'provide the device with a greater degree of freedom to function' relies solely upon the Applicant's very own teachings as the device of Mak is operable *without* any modification including a 'first type of input comprising *continuous* input' and provides no indication of a desire to examine all joystick teachings for a 'greater degree of freedom to function' (that would allegedly lead to the proposed combination)." (Emphasis added) (Pg. 5, 1<sup>st</sup> paragraph).

**EXAMINER'S RESPONSE TO ARGUMENTS IN "A":**

In response to appellant's argument that Motoki's endoscope is nonanalogous art, it has been held that a prior art reference must either be in the field of appellant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the appellant

was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both Mak and Motoki are analogous in that they both teach the use of joysticks as input devices. Being that a joystick is primarily an input device used in multiple fields and for various functions it can easily be seen how these joysticks are related. Furthermore, the Examiner, by no means, is using the functions of the Endoscope as taught in Motoki and placing them in the phone taught by Mak. The Examiner merely refers to the teachings of the functions of the joystick taught by Motoki. Furthermore, Mak is silent as to the type of joystick being used. Therefore, the Examiner used Motoki to teach that his joystick was an *analog* joystick. This inherently defines the joystick as having continuous input and not discrete inputs; thereby providing the joystick with a greater degree of freedom to function (i.e. if the joystick were discrete it would only move in the north-south, east-west directions. An analog joystick has more mobility as it can move in more directions than just north-south or east-west. For instance the joystick would also be able to move in the north-east direction).

#### **APPELLANT'S ARGUMENTS:**

**B.** "Again, Applicants submit that first, one of ordinary skill in the art would have absolutely no apparent reason to turn to the alleged teachings of the Motoki *endoscope apparatus patent* to attempt to combine any teachings therein with Mak, much less to then turn to the alleged teachings of Fleck 'so that a user would not have not reposition his fingertips'. The multiple statements provided in the Action to combine the alleged

teachings of Mak, Motoki and Fleck in the manner proposed, rely solely upon Applicants' very own teachings. (Pg. 6, 3rd paragraph)

**EXAMINER'S RESPONSE TO ARGUMENTS IN "B":**

In response to appellant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Motoki was used to teach that his joystick was an *analog* joystick. This inherently defines the joystick as having continuous input and not discrete inputs; thereby providing the joystick with a greater degree of freedom to function (i.e. if the joystick were discrete it would only move in the north-south, east-west directions. An analog joystick has more mobility as it can move in more directions than just north-south or east-west. For instance the joystick would also be able to move in the north-east direction). The motivation in combining Motoki with Mak is to provide the joystick with a greater degree of freedom to function which is general knowledge available to one of ordinary skill in the art.

Fleck was then used to teach the simultaneous manipulation of two buttons due to the proximity of the buttons. The motivation in combining Fleck with Mak is so that the user would not have to reposition his fingertips across the keyboard to actuate a key (Fleck—Col. 5, lines 13-25 and 35-49) and Motoki is found in the Fleck reference, The

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motivation in using both Motoki and Fleck is general knowledge available to one of ordinary skill in the art.

#### **APPELLANT'S ARGUMENTS:**

C. "Fleck does not teach or even suggest that the mouse button 'extends in radius to the plurality of discrete inputs'" (Pg. 7, 1<sup>st</sup> paragraph)

#### **EXAMINER'S RESPONSE TO ARGUMENTS IN "C":**

The phrase "extends in radius" is very broad. Fleck clearly shows that the mouse button (Fig. 3, 300) extends in radius to the discrete inputs (302, 304, 306 and 308). Fleck states that "a plurality of directional buttons 302-308 at least partially surrounds the mouse button 300 and are positioned adjacent to the mouse button 300 ***in close proximity.***" (Col. 5, lines 1-4). Fleck also states that " The right arrow button 302 and the left arrow button 304...can be ***positioned several millimeters*** away from the mouse button 300...This allows the user to ***rest his thumb over the mouse button 300, and then actuate the right arrow button 302 or the left arrow button 304 by simply 'rocking' his thumb sideways.***" (*Emphasis added—Col. 5, lines 13-19*).

#### **APPELLANT'S ARGUMENTS:**

D. "The mouse 300 in Fig. 3 of Fleck does ***not*** - in any way, extend ***in radius to the right and left or up and down arrow buttons (302, 304, 306, and 308).*** In addition, Fleck provides absolutely no suggestion or teaching that the mouse button 300 and directional buttons 302, 304, 306, 308 can be simultaneously manipulated (see Claim I of Fleck, for

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example, which recites that the mouse assembly permits "a same single fingertip to actuate the mouse Button OR one of the directional buttons" (the claim does not recite, nor does the specification of Fleck support, the actuation of the mouse button AND a directional button, simultaneously)." (Pg. 7, 4th paragraph).

#### EXAMINER'S RESPONSE TO ARGUMENTS IN "D":

Fleck teaches that the user can *move/manipulate* an input device and activate the directional buttons simultaneously in Col. 5, lines 13-49. Specifically, Fleck states that "The right arrow button 302 and the left arrow button 304...can be **positioned several millimeters** away from the mouse button 300...This allows the user to **rest his thumb over the mouse button 300, and then actuate the right arrow button 302 or the left arrow button 304 by simply 'rocking' his thumb sideways.**" (*Emphasis added—Col. 5, lines 13-19*). Furthermore, Fleck states that "a convenient mechanism for horizontal navigation and selection is provided by the mouse button 300, the right arrow button 302, and the left arrow 304, **since the user does not have to reposition his fingertips** across the keyboard 110 in order to find and actuate horizontal navigation keys. (*Emphasis added—Col. 5, lines 20-25*). Lastly, Fleck states that "a plurality of directional buttons 302-308 at least partially surrounds the mouse button 300 and are positioned adjacent to the mouse button 300 **in close proximity.**" (Col. 5, lines 1-4). As can be seen, the user inherently **moves/manipulates** the mouse button simply by rocking his thumb sideways from the rested position. Furthermore, the structural limitations (the proximity of the directional buttons to the mouse button) are met by



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Fleck in Figures 1 and 3; whereby the function (simultaneously manipulating the mouse button and directional key) is inherent to the structure.

**APPELLANT'S ARGUMENTS:**

E. Applicants further respectfully submits that it is, of course, improper to pick and choose elements from several references in order to "build" an obviousness rejection, when such a combination would not in fact have been obvious to one of ordinary skill in the art. One of ordinary skill in the art would not have even considered turning to the alleged teachings of Motoki without the teachings provided by Appellant's disclosure - which, of course, is not a proper basis for rejection, as it is impermissible to use an Applicant's specification as an instruction manual or "road map" to piece together the teachings of the prior art in order to render claims obvious.

**EXAMINER'S RESPONSE TO ARGUMENTS IN "E":**

5. In response to appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the appellant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Rodney Amadiz/

Conferees:

/AMR AWAD/

Supervisory Patent Examiner, Art Unit 2629

/Amare Mengistu/

Supervisory Patent Examiner, Art Unit 2629